

# Duct Installation Optical Fiber Cable

Good quality & Good service based on reasonable prices.

+ OEM customized production according to your requirements. + Standardized products and services according to our own brand.

## GJYXFHA / GJYXFHS Optical Fiber Cable Light Armor Bow type Drop Duct Installation



#### Description:

The typical GJYXFHA/GJYXFHS duct bow-type drop cable is composed of one GJXFH cable in the middle and two strength members on both sides, longitudinal wrapped by aluminum / steel tape and HDPE sheath.

Novel groove design, easily strip and splice, simplified installation and maintenance, higher tensile strength

Suitable as duct cable

Waterproof, good safety

#### Standard:

ITU-T Rec. G.657A	IEC 60794	GR-409
ISO9001	ICEA-596	YD/T 1997-2009

#### Structure and technical parameters:

Cable Type	Cable Size(mm)	Cable Weight (Kg/km)	Tensile Strength Long/Short Term(N)	Crush Resistance Long/Short Term (N/100mm)	Bending Radius Static/Dynamic (mm)	Storage, operating Temperature( °C)
GJYXFHA-1	7.2±0.3	42	300/600	1000/2200	10/20	-20~+60
GJYXFHA-2	7.2±0.3	42	300/600	1000/2200	10/20	-20~+60
GJYXFHS-1	7.4±0.3	59	500/1000	1000/2200	10/20	-20~+60
GJYXFHS-2	7.4±0.3	59	500/1000	1000/2200	10/20	-20~+60



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# GYFA Optical Fiber Cable APL Armored Stranded Loose Tube Duct Installation



- 1. Loose Tube: thermoplastic material, containing opticalfibres and water blocking yarm.
- 2. Central Strength Mlember: glass fibre reinforced plasticrod (GFRP) coated with PE when needed.
- 3. Filler Elements: thermoplastic rods.
- 4. Longitudinal Water Blocking Material: Water blocking tape.
- 5. Armor: APL
- 6. Outer Sheath: black polyethylene

#### Features and Applications:

Gel-free cable structure.

Easy for installation and splicing.

Duct installation and aerial installation.

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
Attenuation	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
Attenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
	@850nm	-	-	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.1 ps/√km	≤0.1 ps/√km	-	-





ltom	Contents			Va	llue			
ltem	Fiber Count	24	48	72	96	144	288	
La ana Tula a	No. of tubes*fibres per tube	2x12	4x12	6x12	8x12	12x12	24x12	
Loose Tube	Outer diameter (mm)			2	2.4			
Central	Material			G	FPR			
strength member	Diameter (mm)	2.25         2.25         2.6         2.6         3.5         3.5						
	PE coated diameter (mm)	-	-	_	4.2	7.2	4.8	
Outer Sheath	Thickness (mm)			Nomi	nal:1.8			
able diameter	r(mm)Approx.	12.0	12.0	12.5	14.0	17.0	19.5	
Cable weight(k	g/km)Approx.	120	120	125	155	225	295	
Operating tem	perature range( $^{\circ}$ C)			-40-	~+70			
ensile Strength	n Short/ Long Term(N)	2700/900						
Crush resistano	e short/long term (N/100mm)	1000/300						
he colour arra	ngement of fibre and tube is spa	ecified in the a	colour identifica	ition table.				



# GYFS Optical Fiber Cable PSP Armored Stranded Loose Tube Duct Installation





- 1. Loose Tube: thermoplastic material, containing opticalfibres and water blocking yarm.
- 2. Central Strength Mlember: glass fibre reinforced plasticrod (GFRP) coated with PE when needed.
- 3. Filler Elements: thermoplastic rods.
- 4. Longitudinal Water Blocking Material: Water blocking tape.
- 5. Armor: corrugated steel tape.
- 6. Outer Sheath: black polyethylene

#### Features and Applications:

Gel-free cable structure.

Easy for installation and splicing.

Duct installation and aerial installation.

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
Attenuation	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
Attenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
	@850nm	-	-	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.1 ps/√km	≤0.1 ps/√km	-	-

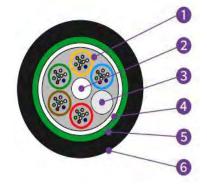


lteres	Contents			Va	llue			
ltem	Fiber Count	24	48	72	96	144	288	
La ana Tula a	No. of tubes*fibres per tube	2x12	4x12	6x12	8x12	12x12	24x12	
Loose Tube	Outer diameter (mm)			2	2.4			
Central	Material			G	FPR			
strength member	Diameter (mm)	2.25         2.25         2.6         2.6         3.5         3.5						
	PE coated diameter (mm)	-	-	-	4.2	7.2	4.8	
Outer Sheath	Thickness (mm)			Nomi	nal:1.8			
able diameter	r(mm)Approx.	12.5	12.5	13.0	14.5	17.5	20.0	
able weight(k	g/km)Approx.	130	130	140	175	255	320	
perating tem	perature range(°C)			-40-	~+70			
ensile Strengtl	n Short/ Long Term(N)	2700/900						
rush resistano	e short/long term (N/100mm)	m) 1000/300		0/300				
he colour arra	ngement of fibre and tube is sp	ecified in the	colour identifica	tion table.				



# GYFS-Semi dry Optical Fiber Cable PSP Armored Stranded Loose Tube Duct Installation





- 1. Loose Tube: thermoplastic material, containing opticalfibres and water blocking yarm.
- 2.Central Strength Member (CSM): Glass fibre reinforcedplastic rod (GFRP), coated with polyethylene when needed.
- 3. Filler Elements: thermoplastic rods.
- 4. Longitudinal Water Blocking Material: Water blocking tape.
- 5. Armor:corrugated steel tape
- 6. Outer Sheath: black polyethylene

#### Features and Applications:

Good crush resistance

Duct installation or aerial installation

Semi-dry core design, easy for installation and splice

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
A ++ +	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
Attenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
Deve ek si ekke	@850nm	-	-	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.1 ps/√km	≤0.1 ps/√km	-	-

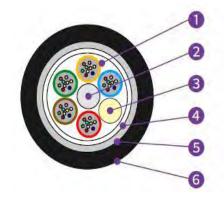


ltem	Contents				Value					
ltem	Fiber Count	24	48	72	96	144	288			
	No. of tubes*fibres per tube	4x6	4x12 6x12 8x12 12x12				24x12			
Loose Tube	Outer diameter (mm)	1.9	2.4							
Central	Material				GFPR					
strength	Diameter (mm)	2.0	2.0 2.0 2.6 2.6 2.6 2.6							
member	Coated CSM diameter (mm)	-	-	-	4.2	7.4	4.8			
water blocking material	Material	Water blocking tape								
Armor	Material			Corrugated	steel tape					
Outer Sheath	Thickness (mm)			Nomi	nal:1.8					
Cable diameter	r(mm)Approx.	11.1	12.1	12.6	14.6	17.6	20.6			
Cable weight(k	g/km)Approx.	110	130	165	205	280	350			
Operating temp	perature range(°C)	-40~+70								
Tensile Strength	n Short/ Long Term(N)	2000/600								
Crush resistance short/long term (N/100mm)		2000/600								
	ngement of fibre and tube is spe									



## GYFTA Optical Fiber Cable GFRP CSM APL Armored Stranded Loose Tube Duct Installation





- 1. Loose Tube: thermoplastic material, containing opticalfibres and water blocking yarm.
- 2.Central Strength Member (CSM): Glass fibre reinforcedplastic rod (GFRP), coated with polyethylene when needed.
- 3. Filler Elements: thermoplastic rods.
- 4. Longitudinal Water Blocking Material: Water blocking tape.
- 5. Moisture-proof: laminated aluminum tape.
- 6. Outer Sheath: black polyethylene

#### Features and Applications:

Good flexibility

Duct installation or aerial installation

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
A the subties	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
Attenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
Danakuiatta	@850nm	-	-	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.1 ps/√km	≤0.1 ps/√km	-	-

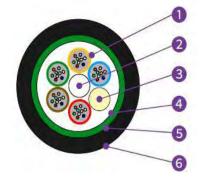


ltom	Contents				Value					
ltem	Fiber Count	24	48	72	96	144	288			
Lana Tulan	No. of tubes*fibres per tube	4x6	4x12	6x12	8x12	12x12	24x12			
Loose Tube	Outer diameter (mm)	1.9	2.4							
Central	Material				GFPR					
strength	Diameter (mm)	2.0	.0 2.0 2.6 2.6 2.6 2.6							
	Coated CSM diameter (mm)	-	-	-	4.2	7.4	4.8			
Moisture- proof	Material	Cable filling compound								
Armor	Material			Laminated a	luminum tape					
Outer Sheath	Thickness (mm)			Nomi	nal:1.8					
Cable diameter	r(mm)Approx.	10.2	10.6	11.4	13.6	16.4	19.5			
Cable weight(k	g/km)Approx.	90	110	130	165	240	290			
Operating tem	perature range(°C)	-40~+70								
Tensile Strength	n Short/ Long Term(N)	2000/600								
Crush resistano	e short/long term (N/100mm)			100	0/300					
<b></b>	ngement of fibre and tube is spe	· C · · · · · · · · · · · · · · · · · ·	1							



# GYFTS Optical Fiber Cable GFRP CSM PSP Armored Stranded Loose Tube Duct Installation





1.Loose Tube: thermoplastic material, containing opticalfibres and filled with a suitable water tightness compound.

- 2. Central Strength Member (CSM): Glass fibre reinforcedplastic rod (GFRP), coated with polyethylene when needed.
- 3. Filler Elements: thermoplastic rods.
- 4. Longitudinal Water Blocking Material: cable filling compound.
- 5. Armor:corrugated steel tape
- 6. Outer Sheath: black polyethylene

#### Features and Applications:

Good crush resistance

Duct installation or aerial installation

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	_	≤3.0 dB/km	≤3.0 dB/km
Attenuetien	@1300nm	-	_	≤1.0 dB/km	≤1.0 dB/km
Attenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
	@850nm	-	_	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	_	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.1 ps/√km	≤0.1 ps/√km	-	-

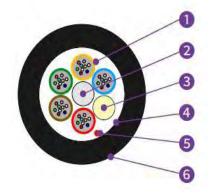


ltem	Contents				Value					
Item	Fiber Count	24	48	72	96	144	288			
La casa Tala s	No. of tubes*fibres per tube	4x6	4x12	6x12	8x12	12x12	24x12			
Loose Tube	Outer diameter (mm)	1.9	2.4							
Central	Material				GFPR					
strength	Diameter (mm)	2.0	2.0	2.6	2.6	2.6	2.6			
member	Coated CSM diameter (mm)	-	-	-	4.2	7.4	4.8			
Moisture- proof	Material	Cable filling compound								
Armor	Material			Corrugated	l steel tape					
Outer Sheath	Thickness (mm)			Nomi	nal:1.8					
Cable diameter	(mm)Approx.	10.4	11.1	12.1	14.0	17.2	19.5			
Cable weight(k	g/km)Approx.	100	120	150	190	270	340			
Operating temp	oerature range(°C)	-40~+70								
Tensile Strength	n Short/ Long Term(N)	2000/600								
Crush resistance short/long term (N/100mm)		2000/600								



# GYFTY Optical Fiber Cable GFRP CSM Stranded Loose Tube Duct Installation





- 1. Loose Tube: thermoplastic material, containing optical fibers and filled with gel.
- 2. Central Strength Member (CSM): Glass fibre reinforcedplastic rod (GFRP), coated with polyethylene when needed.
- 3. Filler Elements: thermoplastic rods.
- 4. Longitudinal Water Blocking Material: cable filling compound.

5.Ripcord

6. Outer Sheath: black polyethylene

#### Features and Applications:

Non-metallic structure

Lighting resistance

Duct installation or aerial installation

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
<b>A</b> <i>th</i> = <i>t</i> : =	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
Attenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
Dava alu vi altila	@850nm	-	_	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.1 ps/√km	≤0.1 ps/√km	-	-



	Contents				Value		
ltem	Fiber Count	24	48	72	96	144	288
	No. of tubes*fibres per tube	4x6	4x12	6x12	8x12	12x12	24x12
Loose Tube	Outer diameter (mm)	1.9			2.4		
Central	Material				GFPR		
strength	Diameter (mm)	2.0	2.0	2.6	2.6	2.6	2.6
member	Coated CSM diameter (mm)	-	-	-	4.2	7.4	4.8
Water Blocking Material	Material	Cable filling compound					
Outer Sheath	Thickness (mm)	Nominal:1.8					
Cable diameter	(mm)Approx.	9.8	10.2	11.1	13.2	16.4	18.8
Cable weight(ke	3/km)Approx.	80	90	105	150	220	270
Operating temp	perature range(°C)			-10~	-+70		
Tensile Strength	Short/ Long Term(N)			2000	)/600		
Crush resistance	e short/long term (N/100mm)			1000	)/300		
The colour arrar	ngement of fibre and tube is spe	cified in the c	olour identifica	tion table.			
Other structure	and fibre count are also availabl	e according to	o customer reqi	uirements.			





### GYFTY73-2 Anti-Rodent Anti Bird FRP Tape Double Sheath Stranded Loose Tube Duct Installation



- 1. Inner Sheath: black polyethylene.
- 2. Loose Tube: thermoplastic material, containing optical fibres and filled with gel.
- 3. Central Strength Member (CSM): glass fibre reinforced plastic rod (GFRP) coated with polyethylene when needed.
- 4. Filler
- 5. Longitudinal Water Blocking Material: cable filling compound.
- 6. Non-metallic Armor: FRP tape.
- 7. Outer Sheath: black polyethylene.

#### Features and Applications:

Good crush resistance

Duct installation or aerial installation

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
Attacuation	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
Attenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
	@850nm	-	-	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.1 ps/√km	≤0.1 ps/√km	-	-

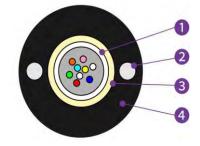


Item	Contents			Value		
ilem	Fiber Count	24	48	72	96	144
L <b>T</b> h .	No. of tubes*fibres per tube	2x12	4x12	6x12	8x12 2.6 3.7 1.0 1.8 14.6 152 0	12x12
Loose Tube	Outer diameter (mm)			2.2		
	Material			GFPR		
Central strength member	Diameter (mm)		4x12         6x12         8x12         1           2.2         2.2         GFPR             2.25         2.6	2.8		
	Coated CSM diameter (mm)		-		3.7	6.1
lan an Chaoth	Material			HDPE		
Inner Sheath	Thickness (mm)			Nominal:1.0	8x12 2.6 3.7 14.6	
	Material	PE				
Outer Sheath	Thickness (mm)			Nominal:1.8	8x12 2.6 3.7 14.6	
Cable diameter(mm)Appro>	ζ.		13.0		14.6	16.8
Cable weight(kg/km)Approx	κ.		132		152	196
Operating temperature rang	je(℃)			-40~+70		
ensile Strength Short/ Long	Term(N)			2700/900		
Crush resistance short/long t	term (N/100mm)			1000/300		
The colour arrangement of f	ibre and tube is specified in the co	olour identifica	ation table.			
) ther structure and fibre co	ount are also available according to	customer rec	uirements			



## GYFXY Optical Fiber Cable FRP rods Uni-Tube Duct Installation





- 1. Loose Tube: thermoplastic material, containing optical fibres and filled with gel.
- 2. Strength Member: two glass fibre reinforced plasticrods (GFRP).
- 3. Longitudinal Water Blocking Material: Water blocking yarn.
- 4. Outer Sheath: black polyethylene.

#### Features and Applications:

Small diameter, light weight, easy for transportation and installation.

Duct installation or aerial installation

Lighting resistance

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
Attenuation	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
Allenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
Bandwidth	@850nm	-	-	≥500 MHz · km	≥200 MHz · km
Banawiatri	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.1 ps/√km	≤0.1 ps/√km	-	-





ltom	Contents		Value
ltem	Fiber Count	6	12
1 <b>T</b> .l	No. of tubes*fibres per tube	1×6	1x12
Loose Tube	Outer diameter (mm)		2.0
	Material		GFPR
Strength member	Diameter (mm)		1.0
water blocking material	Material		Water blocking yarn
Outer Sheath	Thickness (mm)		Nominal:2.5
Cable diameter(mm)Appro	x.		7.5
Cable weight(kg/km)Appro	х.		65
Operating temperature rang	∃e(°C)		-20~+70
Tensile Strength Short/ Long	3 Term(N)		2000/600
Crush resistanoe short/long	term (N/100mm)		2000/600
The colour arrangement of	fibre and tube is specified in the colou	r identification table.	



### GYFY All-Dielectric Optical Fiber Cable GFRP CSM Stranded Loose Tube Duct Installation



- 1. Loose Tube: thermoplastic material, containing opticalfibres and water blocking yarm.
- 2. Central Strength Mlember: glass fibre reinforced plasticrod (GFRP) coated with PE when needed.
- 3. Filler Elements: thermoplastic rods.
- 4. Longitudinal Water Blocking Material: Water blocking tape.
- 5. Ripcord
- 6. Outer Sheath: black polyethylene

#### Features and Applications:

Lighting resistance.

Gel-free and Non-metallic structure.

Duct installation and aerial installation.

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
Attenuation	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
Attenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
Dava al uri alth	@850nm	-	-	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.10 ps/√km	≤0.10 ps/√km	-	-

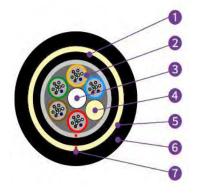


Contents				Value		
Fiber Count	24	48	72	96	144	288
No. of tubes*fibres per tube	2x12	4x12	6x12	8x12	12x12	24x12
Outer diameter (mm)			2	.4		
Material	G	FPR				
Diameter (mm)	2.25	2.25	2.6	2.6	3.5	3.5
PE coated diameter (mm)	-	-	-	4.2	7.2	4.8
Thickness (mm)	Nominal:1.8					
(mm)Approx.	11.0	11.0	11.6	13.0	16.0	18.5
g/km)Approx.	100	100	105	120	180	225
perature range(°C)			-40-	~+70		
Short/ Long Term(N)			2700	)/900		
e short/long term (N/100mm)			1000	)/300		
	Fiber CountNo. of tubes*fibres per tubeOuter diameter (mm)MaterialDiameter (mm)PE coated diameter (mm)PE coated diameter (mm)(mm)Approx.(mm)Approx.(mm)Approx.(short/ Long Term(N)	Fiber Count24No. of tubes*fibres per tube2x12Outer diameter (mm)2x12Material1Diameter (mm)2x25PE coated diameter (mm)-Thickness (mm)-(mm)Approx.11.0(mm)Approx.100perature range(°C)Short/ Long Term(N)	Fiber Count2448No. of tubes*fibres per tube2x124x12Outer diameter (mm)2x124x12MaterialDiameter (mm)2.252.25PE coated diameter (mm)Thickness (mm)(mm)Approx.11.011.0(mm)Approx.100100perature range(°C)Short/ Long Term(N)	Fiber Count         24         48         72           No. of tubes*fibres per tube         2x12         4x12         6x12           Outer diameter (mm)         2x25         2x6         1           Material         2x25         2x6         1           Diameter (mm)         2x25         2x6         1           PE coated diameter (mm)         -         -         -           Thickness (mm)         -         -         Nomination           (mm)Approx.         11.0         11.0         11.6           (mm)Approx.         100         105         -40-           Short/ Long Term(N)         2700         -         -	Fiber Count $24$ $48$ $72$ $96$ No. of tubes*fibres per tube $2x12$ $4x12$ $6x12$ $8x12$ Outer diameter (mm) $= - + +70$ $= - + +70$ Material $= - + +70$ $= - + +70$ Diameter (mm) $= - + +70$ $= - + +70$ PE coated diameter (mm) $= - + +70$ $= - + +70$ mm)Approx. $= - + +70$ $= - + +70$ gkm)Approx. $= - + +70$ $= - + +70$ Short/ Long Term(N) $= - + + +70$ $= - + +70$	Fiber Count94487296144No. of tubes*fibres per tube $2x12$ $4x12$ $6x12$ $8x12$ $12x12$ Outer diameter (mm) $2x12$ $5x12$ $2x12$ $5x12$ $5x12$ $12x12$ Material $$



## GYFY63 All-Dielectric Optical Fiber Cable Anti rodent Glass Yarns Double Sheath Duct Installation





- 1. Inner Sheath: black polyethylene.
- 2. Loose Tube: thermoplastic material, containing optical fibres and filled with gel.
- 3. Central Strength Member (CSM): glass fibre reinforced plastic rod (GFRP) coated with polyethylene when needed.
- 4. Filler Elements: thermoplastic rods.
- 5. Non-metallic Armor: glass yarn.
- 6. Outer Sheath: black polyethylene.
- 7. Ripcord: two polyester ripcords under each sheath.

#### Features and Applications:

Non-metallic design, good tensile and crush resistance.

Excellent anti-rodent performance.

Duct or direct buried installation.

Semi-dry core design, easy for installation and splice.

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
Attenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
Bandwidth	@850nm	-	-	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.1 ps/√km	≤0.1 ps/√km	-	-





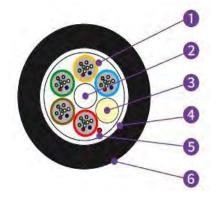
ltono	Contents				Value		
ltem	Fiber Count	24	48	72	96	144	288
La casa Tuda a	No. of tubes*fibres per tube	4x6	4x12	6x12	8x12	12x12	24x12
Loose Tube	Outer diameter (mm)	1.9			2.4		
Central	Material			Ρ	hosphated stee	I wire	
strength	Diameter (mm)	2.0	2.0	2.6	2.6	2.6	2.6
member	Coated CSM diameter (mm)	-	-	-	4.2	7.4	4.8
water blocking material	Material	Water blocking tape					
Inner Sheath	Thickness (mm)	Nominal:1.0					
Armor	Material	Glass yarn					
Outer Sheath	Thickness (mm)			Nomi	nal:2.0		
Cable diameter	r(mm)Approx.	13.0	13.8	14.6	16.2	19.4	22.2
Cable weight(k	g/km)Approx.	145	165	175	205	270	340
Operating tem	perature range(°C)			-40-	~+70		
īensile Strength	n Short/ Long Term(N)			2700	0/900		
Crush resistano	e short/long term (N/100mm)			2200	0/700		

The colour arrangement of fibre and tube is specified in the colour identification table.



### GYFY-Semi dry All-Dielectric Optical Fiber Cable GFRP CSM Stranded Semi-Dry Loose Tube Duct Installation





- 1. Loose Tube: thermoplastic material, containing optical fibers and filled with gel.
- 2. Central Strength Mlember: glass fibre reinforced plasticrod (GFRP) coated with PE when needed.
- 3. Filler Elements: thermoplastic rods.
- 4. Longitudinal Water Blocking Material: Water blocking tape.
- 5. Ripcord
- 6. Outer Sheath: black polyethylene.

#### Features and Applications:

Non-metallic structureLighting resistance

Duct installation or aerial installation

Semi-dry core design, easy for installation and splice

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
A ##	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
Attenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
Dava aku di alkia	@850nm	-	-	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.1 ps/√km	≤0.1 ps/√km	-	-



Loose TubeNo. of tubes*fibres per tube4x64x126x128x1212x1224xOuter diameter (mm)1.9 $$ 2.4 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>								
IndexImage: Prime Prim	ltem	Contents				Value		
Loose TubeOuter diameter (mm)1.92.4MaterialMaterial $$	item	Fiber Count	24	48	72	96	12x12 2.6 7.4 16.4	288
Outer diameter (mm)1.9 $2.4$ Central strength memberMaterial $2.0$ $2.0$ $2.6$	Lassa Tulas	No. of tubes*fibres per tube	4x6	4x12	6x12	8x12	12x12	24x12
Central strength member         Diameter (mm)         2.0         2.0         2.6 <t< td=""><td>loose tude</td><td>Outer diameter (mm)</td><td>1.9</td><td></td><td></td><td>2.4</td><td></td><td></td></t<>	loose tude	Outer diameter (mm)	1.9			2.4		
strength memberDiameter (mm) $2.0$ $2.0$ $2.6$	Central	Material				GFPR		
Coated CSM diameter (mm)4.27.44.water blocking materialMaterialWater blocking tapeOuter SheathThickness (mm)Nomial:1.810.419Cable diameter (mm)Approx.10.010.811.613.216.419Cable weight(kg/km)Approx.8510012015522027Operating temperature range(°C)Tensile Strength Short/ Long Term(N)1012015522027	strength	Diameter (mm)	2.0	2.0	2.6	2.6	2.6	2.6
blocking materialMaterialMaterialWaterialWater blocking tapeOuter SheathThickness (mm) $\cdot \cdot $	member	Coated CSM diameter (mm)	-	-	-	4.2	7.4	4.8
Cable diameter(mm)Approx.       10.0       10.8       11.6       13.2       16.4       19         Cable weight(kg/km)Approx.       85       100       120       155       220       27         Operating temperature range(°C)       -40~+70         Tensile Strength Short/ Long Term(N)       2000/600	blocking	Material	Water blocking tape					
Cable weight(kg/km)Approx.     85     100     120     155     220     27       Operating temperature range(°C)     -40~+70       Tensile Strength Short/ Long Term(N)     2000/600	Outer Sheath	Thickness (mm)			Nomi	nal:1.8		
Operating temperature range(°C)     -40~+70       Tensile Strength Short/ Long Term(N)     2000/600	Cable diameter	r(mm)Approx.	10.0	10.8	11.6	13.2	16.4	19.2
Tensile Strength Short/ Long Term(N)     2000/600	Cable weight(k	g/km)Approx.	85	100	120	155	220	275
	Operating tem	perature range(°C)			-40-	~+70		
Crush resistance short/long term (N/100mm) 1000/300	Tensile Strength	n Short/ Long Term(N)			2000	0/600		
	Crush resistano	e short/long term (N/100mm)			1000	0/300		
The colour arrangement of fibre and tube is specified in the colour identification table.	The colour arra	ngement of fibre and tube is sp	ecified in the c	colour identifica	tion table.			
Other structure and fibre count are also available according to customer requirements.	Other structure	and fibre count are also availab	le according to	o customer req	uirements.			

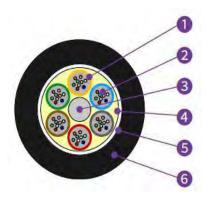




# GYTA-1 Optical Fiber Cable APL Armored Stranded Loose Tube Duct Installation

The bending insensitive optical fibres are housed in loose tubes that are made of high-modulus plastic and filled with tube filling compound. The loose tubes with smaller size are stranded to form a cable core. The core is armored with laminated aluminum tape. Then a PE outer sheath is extruded. This structure has a smaller size to enhance installation density of fibres in ducts.





- 1. Loose Tube: thermoplastic material, containing filled with gel.
- 2. Optical Fiber: 200um B6a2 Fibre
- 3. Central Strength Member(CSM): phosphate steel wire.
- 4. Cable Filling Compound.
- 5. Longitudinal Water Blocking Material: Water blocking tape.
- 6 Outer Sheath: black polyethylene with APL Tapes.

#### Features and Applications:

Accurate process control ensuring good mechanical and temperature performances

The material of loose tubes with good hydrolysis resistance and relatively high strength

Tube filling compound providing the key protection for fibres

Using small-sized B6a2 fibres with good micro and macro bending performance

Comply with IEC60794-3-11(2007): Optical fibre cables- Part 3-11

Water resistance of optical cable is ensured by the following measures: Special water-blocking compound filled in loose tubes Laminated aluminum tape armorCable filling compound ensuring longitudinal water resistance





#### Technical Characteristics:

Cable Type	Fiber Count	Stranded units	Cable Diameter (mm)	Cable Weight (kg/km)	Bending Radius Dynamic/Static (MM)	Tensile Strength Long/Short Term (N)	Crush Resistance Long/Short Term (N/100 mm)
GYTA≤60	≤60	5	9.8	108	20D/10D	240/800	300/1000
GYTA-62~72	62~72	6	10.4	129	20D/10D	300/850	300/1000
GYTA-74~96	74~96	8	10.6	132	20D/10D	350/1200	300/1000
GYTA-98~120	98~120	10	12.1	161	20D/10D	450/1400	300/1000
GYTA-122~144	122~144	12	13.6	198	20D/10D	700/2000	300/1000

#### Environmental Characteristics:

Transport/storage temperature: -40  $^\circ\!\mathrm{C}$  to +70  $^\circ\!\mathrm{C}$ 

Compound flow: No filling compound or coating compound drop out of optical cable at  $70\,^\circ\!\mathrm{C}$ 

Water penetration: No water comes out within 24 hours after 1m water head is applied to the entire cross section of 3m long optical cable

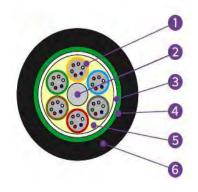




# GYTS-1 Optical Fiber Cable PSP Armored Stranded Loose Tube Duct Installation

In the GYTS cable, single-mode/multimode fibres are positioned in the loose tubes, which are made of high modulus plastic materials, while the loose tubes strand together around metallic central strength member into a compact and circular cable core. For certain high fibre count cables, the strength member would be covered with polyethylene (PE). The water-blocking materials are distributed into interstices of the cable core, and the PSP is longitudinally applied around the cable core before a PE sheath is extruded over it.





- 1. Loose Tube: thermoplastic material, containing optical fibers and filled with gel.
- 2. Central Strength Member(CSM): phosphate steel wire.
- 3. Armor: corrugated steel tape.
- 4. Longitudinal Water Blocking Material: Water blocking tape.
- 5. Cable Filling Compound
- 6. Outer Sheath: black polyethylene.

#### Features:

Excellent mechanical and temperature performance guaranteed by the accurate excess fibre length

Critical protection to fibres, based on the excellent hydrolysis resistance and strength performance of tube material and special filling compound filled in the tube

Excellent crush resistance and flexibility

Excellent ultraviolet prevention with PE sheath

The following measures are taken to ensure the water blocking performance of the cable:

- Single steel wire used as the central strength member
- Special water-blocking filling compound in the loose tube
- 100% cable core filling
- PSP moisture barrier





### Technical Characteristics:

Cable Type	Fiber Count	Tubes + Fillers	Max. No. of Fibers in Tube	Cable Diameter (mm)	Cable Weight (kg/km)	Tensile Strength Long/Short Term (N)	Crush Resistance Long/Short Term (N/100 mm)
GYTS-2~30	2~30	5	6	9.8	-	600/1500	300/1000
GYTS-32~36	32~36	6	6	10.4	-	600/1500	300/1000
GYTS-38~60	38~60	6	12	10.6	-	600/1500	300/1000
GYTS-62~72	62~72	6	12	12.1	-	600/1500	300/1000
GYTS-74~96	74~96	8	12	12.1	-	600/2000	300/1000
GYTS-98~120	98~120	10	12	15.8	-	600/2500	300/1000
GYTS-122~144	122~144	12	12	15.8	-	600/2500	300/1000



GYTS-30



GYTS-36

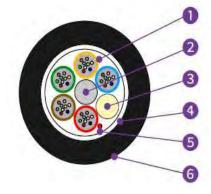


GYTS-96



## GYTY Optical Fiber Cable Non Armored Stranded Loose Tube Duct Installation





- 1. Loose Tube: thermoplastic material, containing optical fibers and filled with gel.
- 2. Central Strength Member(CSM): phosphate steel wire.
- 3. Filler Elements: thermoplastic rods.
- 4. Longitudinal Water Blocking Material: Water blocking tape.
- 5. Ripcord
- 6. Outer Sheath: black polyethylene

#### Features and Applications:

High tensile strength and semi-dry core design. Specially designed for easy sheath removal. Duct installation or aerial installation.

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
A 44	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
Attenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
Dava ak u i altha	@850nm	-	-	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.1 ps/√km	≤0.1 ps/√km	-	-





Item	Contents				Value			
item	Fiber Count	12	24	48	72	96	144	
Loose Tube	No. of tubes*fibres per tube	2x6	2x12	4x12	6x12	8x12	12x12	
	Outer diameter (mm)	1.9	1.9 2.1					
Central	Material		Phosphate steel wire					
strength	Diameter (mm)		1.8				2.0	
member	Coated CSM diameter (mm)		2	3.5	6.1			
water blocking material	Material	Water blocking tape						
Outer Sheath	Thickness (mm)			Nomi	nal:1.6			
Cable diameter	(mm)Approx.	9.9	10.4	10.4	10.4	11.5	14.2	
Cable weight(k	g/km)Approx.	88	88	90	92	120	160	
Operating temp	perature range( $^{\circ}$ C)			-20/	~+70			
Tensile Strength	n Short/ Long Term(N)	2700/900						
Crush resistanoo	e short/long term (N/100mm)			2000	0/600			
The colour arrai	ngement of fibre and tube is sp	ecified in the c	colour identifica	tion table.				
Other structure	and fibre count are also availab	le according to	o customer req	uirements.				



# GYXTW Optical Fiber Cable PSP Armored Central Tube Duct Installation



- 1. Strength Member: two phosphate steel wires.
- 2. Loose Tube: thermoplastic material, containing opticalfibres and water blocking yarm.
- 3. Longitudinal Water Blocking Material: Water blocking tape.
- 4. Armor: corrugated steel tape.
- 5. Outer Sheath: black polyethylene.

#### Features and Applications:

High crush resistance.

Small diameter and light weight.

Duct or direct buried installation or aerial installation together with tension strand wire.

		G.652.D	G.655	50/125um	62.5/125um
	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
Attenuation	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
Allenuation	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
Dava alu si alula	@850nm	-	-	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Polarization	Individual fibre	≤0.20 ps/√km	≤0.20 ps/√km	-	-
mode dispersion	Design link value (M=20,Q=0.01%)	≤0.1 ps/√km	≤0.1 ps/√km	-	-





ltoro	Contents	Value					
Item	Fibre Count	6	12	24			
Loose Tube	No. of tubes*fibres per tube	1x6	1x12	1x24			
	Outer diameter (mm)	3.0	3.0	3.2			
Water blocking tape		Longitudinal Water Bloc	king Material				
Armor		Corrugated steel tape					
Outer Sheath		Black polyethylene					
Strength Member	Two	Two phosphate steel wires (Diameter 1.2mm)					
Cable diameter(mm) Approx.		10.6					
Cable weight(kg/km) Approx.		100					
Operating temperature range(°C	2)	-40~+70					
Tensile Strength Short/ Long Terr	n(N)	1500/600					
Crush resistance short/long term	(N/100mm)	3000/1000					

The colour arrangement of fibre and tube is specified in the colour identification table.





# GYXY Optical Fiber Cable Non Armored Central Tube Duct Installation

The fibers,  $250 \mu$  m, are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. Over the tube, water-blocking material is applied to keep the cable watertight. Two parallel steel wires are placed at the two sides. The cable is completed with a polyethylene (PE) sheath.



#### Characteristics:

Good mechanical and temperature performance

High strength loose tube that is hydrolysis resistant

Special tube filling compound ensure a critical protection of fiber

Two parallel steel wires ensure tensile strength

PE sheath protects cable from ultraviolet radiation

Two parallel steel wires ensure tensile strength

Small diameter, light weight and friendly installation

		G.652.D	G.655	50/125um	62.5/125um
Attenuation	@850nm	-	-	≤3.0 dB/km	≤3.0 dB/km
	@1300nm	-	-	≤1.0 dB/km	≤1.0 dB/km
	@1310nm	≤0.36 dB/km	≤0.40 dB/km	-	-
	@1550nm	≤0.22 dB/km	≤0.23 dB/km	-	-
Deve also d'alle	@850nm	-	-	≥500 MHz · km	≥200 MHz · km
Bandwidth	@1300nm	-	-	≥1000 MHz · km	≥600 MHz · km
Numerical Aperture		-	-	0.200±0.015NA	0.275±0.015NA
Cable Cut-off Wavelength $\lambda$ cc		≤1260nm	≤1260nm	-	_





#### Technical Characteristics:

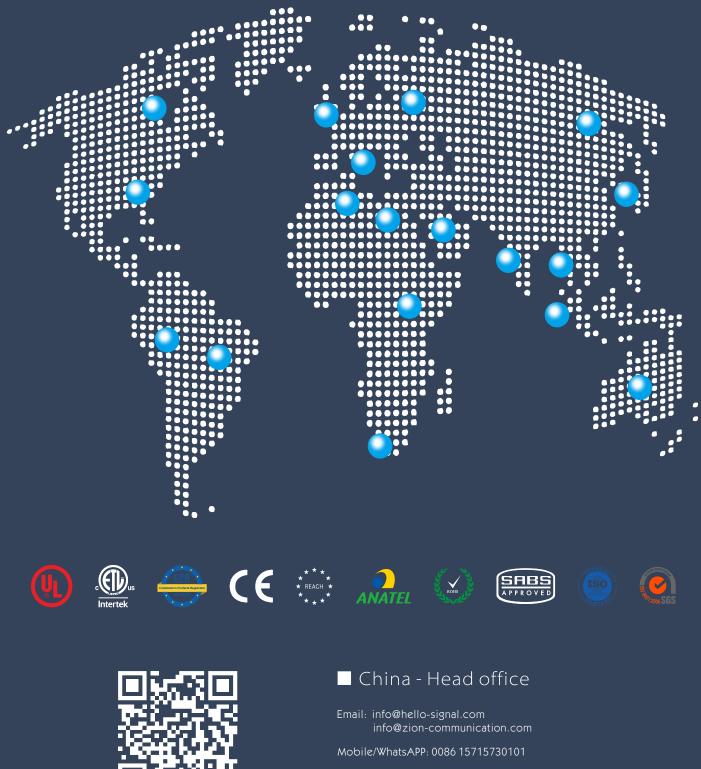
Cable Type	Fiber Count	Cable Diameter (mm)	Cable Weight (kg/km)	Bending Radius Dynamic/Static (MM)	Tensile Strength Long/Short Term (N)	Crush Resistance Long/Short Term (N/100 mm)
GYXY-2~12	2~12	9.5	90	10D/20D	600/1500	300/1000
GYXY-12~24	12~24	10.2	100	10D/20D	1000/3000	300/1000

Storage/Operating temperature: -40  $^\circ\mathrm{C}$  to +70  $^\circ\mathrm{C}$ 





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